Transfer and access to universal grammar in adult second language acquisition

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Chapter 4

Multiple case studies on the ILs of adult Romance L2ers of Germanic languages

4.1 Introduction

This chapter tests the empirical predictions that follow from the theoretical assumptions outlined in the previous chapter. The production data of nine adult native speakers of Spanish and Italian learning Swedish, German or English as a second language (L2) are investigated to determine to what extent the first language (L1) carries over into the L2. Moreover, the data are also searched for evidence of acquisition of the TL. The two hypotheses that are tested are *Full Transfer* and *Full Access*. The key word in my quest is *clustering* (cf. sections 1.4, 2.4 and 3.3). Only *clustered transfer* of properties related to the L1 value of the Null Subject Parameter counts as evidence for *Full Transfer* of the L1 parameter value. Likewise, only *clustered acquisition* of the properties related to the TL value of the Null Subject Parameter (parameter resetting) counts as evidence for *Full Access*.

Chapter 3 argued that the three relevant properties commonly associated with the Null Subject Parameter value of Spanish and Italian are the omission of subjects from main and subordinate clauses, subject-verb inversion and placement of the finite verb before the adverb. Therefore, this chapter focuses on the occurrence of these interrelated properties.

The chapter is organised as follows. Section 4.2 describes the methodology of the multiple case studies into the IL grammars of adult Spanish and Italian learners of Swedish, German and English. Section 4.3 (Spanish-Swedish), 4.4 (Italian-German) and 4.5 (Italian-English) present the results of these longitudinal studies per property of the Null Subject Parameter: patterns in subject omissions; VS constructions; and word orders involving adverbs and other constituents. Section 4, finally, summarises the results.

4.2 Method

4.2.1 Data

The longitudinal production data used in the analyses were obtained from nine adult Romance (Spanish and Italian) learners of Germanic languages (Swedish, German and English) involved in the ESF (European Science Foundation) project "Second Language Acquisition by Adult Immigrants" (Perdue 1984, Perdue 1993).[79] These data were collected over a period of approximately two years. Recordings were made of each encounter with the learner, at intervals of four to six weeks. The length and number of usable utterances varies greatly over the transcripts of recordings. For more details on the biodata of the individual learners see appendix 1.1.

4.2.2 The coding system

The coding system used for the data in this study primarily encodes syntactic features; however, it also takes into account discourse information to establish discourse topics and the reference of (missing) subjects. The system includes separate coding lines for clause type (main or subordinate clause), sentence pattern (declarative, interrogative, imperative), verb type (copula "be", other lexical verbs, (modal) auxiliary verbs), finiteness (infinitive and present forms, present –s, irregular past forms or regular past –ed, progressive –ing, and perfect forms), word order (SVOA, VOS, etc), and subjects (pronominal subject or full lexical NP subject, person/number reference, discourse topic or first mentioning). Codes were entered in a database programme (*MS Access*).

The utterances that were used in this study consisted of declaratives and questions with a verb and at least one nonverbal constituent.[80] Partially or fully Spanish and Italian utterances were eliminated, as well as unintelligible utterances, imperatives, and imitations.[81] Imperatives were not counted because the omission

[79] Background information and the data themselves can be found at www.mpi.nl

[80] The common and necessary choice not to consider one-word utterances as usable data excludes subjectless utterances like "*understand*?" from the countings. This affects the percentage of missing subjects in a negative way, given that utterances consisting of a overt subject pronoun and a verb, like "*you understand*?" were included in the rates of overt subjects.

[81] Partially Italian utterances were excluded if the verb or other core constituents (subject, object) were Italian; however, if an otherwise English utterance contained only an Italian determiner, adjective or adverbial, it was included.

of the second person subject pronoun from imperative constructions is the preferred option in both the L1 and in the TL (*Pick up the bag*). An utterance was treated as an instance of imitation if it immediately followed an interlocutor's utterance and was a partial or full repetition of that utterance, to which no new material was added or morphemic alterations were made. Seemingly unanalysed routine utterances that were used repeatedly by a particular learner, such as *You know*, *Don't know, Depends,* were only counted the first time they appeared in the transcript of each recording session.

All usable utterances were hand searched for overt subject noun phrases (NP), overt subject pronouns, overt expletive subjects, or missing subjects. Subject pronouns included personal pronouns (*I, you, he, she, it,* and *they,* but also *me, him, her, them* when they functioned as subjects) and demonstrative pronouns (*this, that,* etc). The person and number of each subject were also noted to see whether or not missing subjects were spread out equally across all person/number specifications. The identity of missing subjects was recovered from the discourse context, where this was possible. A special code was entered for missing subjects in coordinated clauses that were co-referential with the overt subject of the first clause ("black boy hear this trouble and go down stairs for to see"). Such cases of subject omission are permitted in English and were therefore excluded from analysis.

The formula for calculating the percentage of missing referential subject pronouns is adopted from Hilles (1991) and is shown in (1)

(1) X / X+Y * 100= percentage missing subjects

In (1), X is the actual number of referential subjects that were found missing from usable utterances in the IL data. This number is divided by the total number of usable utterances (X + Y), where Y is the number of instances where subject pronouns would have been omitted from similar constructions in Spanish and Italian, but were in fact overt in the IL data.

In order to establish Y cases, discourse factors were taken into account. In Spanish and Italian, like in other 'null subject' languages, the omission of subjects is constrained both by grammatical and discourse factors. Discourse constraints require that the missing subject refers to a discourse topic. For this reason, the criterion for Y is met if the identity of the overt subject has been established in the previous discourse. Most overt IL pronominal subjects meet this condition, given that pronouns can be omitted in Spanish and Italian once their reference is clear from the context. In this sense, pronominal subjects differ from NP subjects, which are used to introduce a 3rd person subject for the first time or serve the purpose of disambiguating the reference of the subject. In other words, full lexical NP subjects are used when the identity of the subject cannot be deduced from the discourse context; therefore, unlike Spanish and Italian subject pronouns, NP subjects are overt by definition.

Defining the context for Y is crucial for calculating the proportion of missing IL subjects (see Hyams 1992:415). The less restrictive the context for Y, the lower the proportion of subject omissions. For instance, including NP subjects in the number of Y cases would mean more Y cases, resulting in a correspondingly lower proportion of missing subjects. This procedure would thus be prone to underestimating the percentage of missing subjects. For this reason, utterances with full lexical NP subjects were subtracted from the set of usable utterances in calculating the percentage of missing referential subjects.

Due to their non-referential nature, expletive subjects were counted separately from referential subject pronouns. In the area of expletive subjects Spanish and Italian are different. Spanish does not have any overt expletive subjects, while Italian does in certain constructions. On the one hand, Italian does not have an overt expletive pronoun in constructions for which it is compulsory in the TLs Swedish, German and English: atmospheric and temporal predicates (e.g. *It snowed all day, It is early*), constructions with an extraposed clausal subject (e.g. *It is unbecoming for a cardinal to ski badly*) and certain verbs (*seem*, *depend*). On the other hand, Italian existential constructions with a form of copula '*be*' require the presence of the expletive *ci*, which can be seen as the counterpart of English existential *there* (cf. *Ci sono molti clienti nel negozio: There are many clients in the store* (Burzio :1986, 126). Therefore, the frequencies for expletive *it* and *there* were not collapsed but treated separately instead.

To determine whether referential subject omissions follow a Spanish-like or Italian-like distribution, a distinction was made between subject omissions from main clauses and subject omissions from subordinate clauses introduced by an overt complementiser. To establish the latter, all usable utterances were coded for subordinating conjunctions normally introducing a tensed clause (*that, what, because, who, where, when, why, how, if, so, before*, etc.). Sentence initial and sentence medial subordinators were treated as one group.

In both first and second language acquisition research, the use of null subjects is often intimately associated with the acquisition of verbal inflection. In this study, verb morphology, modals, and finite embedded clauses are taken into consideration. One reason for doing this is to control for possible finiteness/missing subject interactions; another reason is to see whether the four L2 learners of this study are in any significant way similar to or different from other (L1 or L2) learners regarding the development of verbal inflections and the loss of null subjects.

In English, tense and agreement are visible on the copula *be*, the auxiliaries *be, do,* and *have,* the third person singular (3SG-*s*), and the past tense of irregular or regular verbs (PAST-*ed*). Occurrences of such inflections were counted irrespective of whether they were used appropriately in terms of the target language form or context; however, if the 3SG-*s* morpheme was used with other than third person singular subjects this was noted. Uninflected third person singular verbs were coded separately from the appropriately used base forms. Instances of the progressive (V+ing), with or without the auxiliary, were also coded separately, even if in the given context the progressive aspect was not appropriate. A problem

with the past tense *-ed* morpheme is that it is not always clear whether the learners use it as a perfective marker or as a past tense marker. Modals, which are assumed to be inherently finite, were also counted.

The data were also searched for instances of adverbs. A distinction was made between 'adverbs proper' and other adverbs. The category of proper adverbs is often used as a diagnostic for the application of verb movement and comprises the following frequency and manner adverbs: *again, allegedly, almost*, *already*, *always*, *carefully*, *completely*, *early*, *evidently*, *fast*, *frankly, immediately*, *just*, *luckily, necessarily, no longer*, *obligatorily, often, perhaps, probably, quickly, quietly, rarely, slowly*, *seldom, sometimes, soon*, *still, then, usually, well, willingly, wisely*.[82]

4.2.3 Statistical analyses

All variables involved in this study (subject, clause type, verb type, word order etc.) represent nominal scales. For this reason, the IL data are analysed exclusively in terms of frequencies, which are presented both in absolute numbers and percentages. The statistics used to calculate significance of relationship between the variables "missing subjects" and "verb type" was a Chi-square analysis. The degrees of freedom for the $\chi 2$ analysis was 1 ($df = 1$); the alpha decision level was set at $\alpha < .01$; therefore, the critical value was 6.64.

4.3 The Spanish-Swedish IL findings

4.3.1 Missing subjects

Figures 1 and 2 display the percentages of missing referential subjects across all usable utterances per learner. Both learners omit subjects throughout the data collection, even though Fernando's proportion of subject omissions is much higher than Nora's: Fernando's percentages continue to range between 20-40%, whereas Nora's never get higher than 10% after recording viii, but neither of them stops omitting subjects altogether.

[82] This list of 'proper adverbs' is based on the adverbs listed in linguistic literature dealing with adverb placement vis-à-vis verbs (Belletti 1990; Cinque 1999; Emonds 1976; Pollock 1989; White 1991).

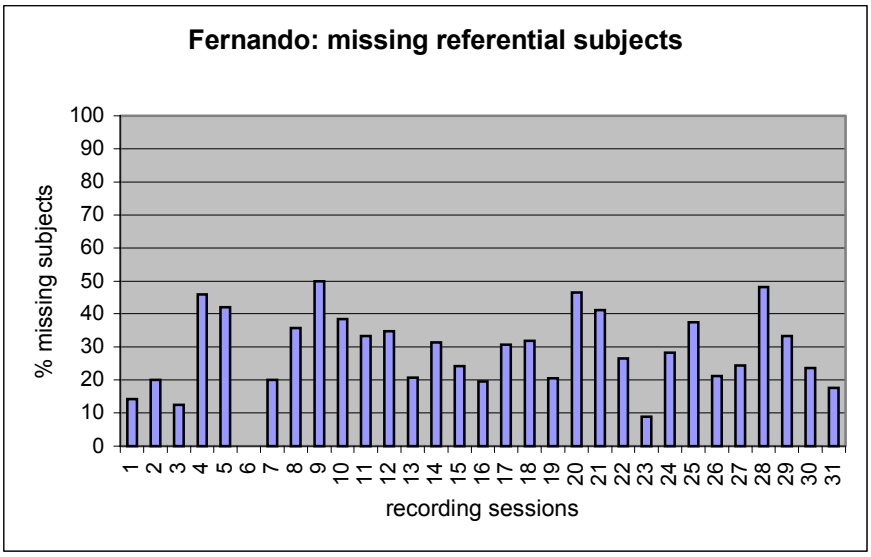

Figure 1.

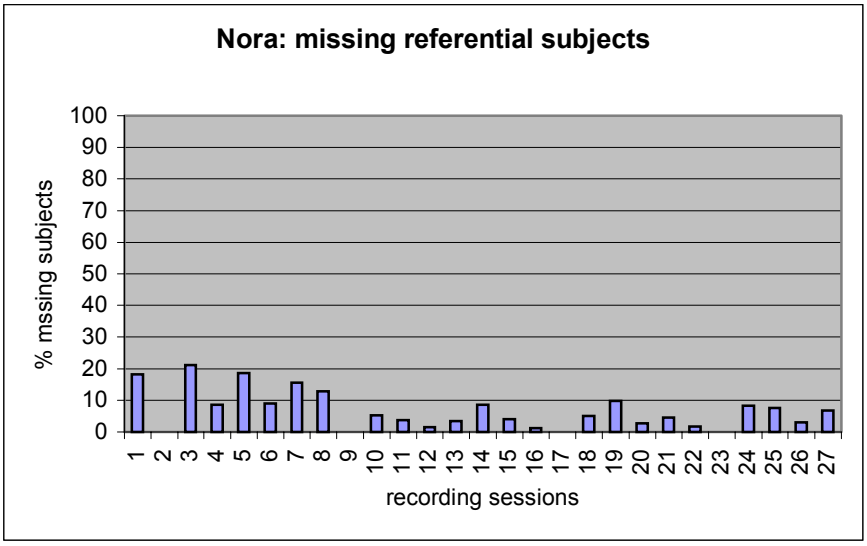

Figure 2.

Tables 1 and 2 compare the distribution of subject omissions across main clauses and subordinate clauses introduced by a complemetiser. As expected, the percentages of missing subjects do not differ much with respect to clause type.

Table 1.

Fernando: missing referential subjects in main and subordinate clauses						
	Main clauses			**Subordinate clauses with complementiser**		
	missing	Total	% missing	missing	total	% missing
i.	1	7	**14**	0	0	n.a.
ii.	1	4	**25**	0	1	**0**
iii.	2	16	**13**	0	0	n.a.
iv.	31	70	**44**	2	2	**100**
v.	56	135	**41**	2	3	**67**
vi.	0	6	**0**	0	1	**0**
vii.	5	23	**22**	0	2	**0**
viii.	15	42	**36**	0	0	n.a.
ix.	1	3	**33**	1	1	**100**
x.	5	12	**42**	0	1	**0**
xi.	16	44	**36**	0	4	**0**
xii	37	108	**34**	4	10	**40**
xiii	32	154	**21**	1	5	**20**
xiv	36	110	**33**	2	11	**18**
xv	34	130	**26**	3	23	**13**
xvi	42	199	**21**	1	21	**5**
xvii	4	13	**31**	0	0	n.a.
xviii	44	130	**34**	3	18	**17**
ixx	32	152	**21**	4	24	**17**
xx	55	115	**48**	4	12	**33**
xxi	14	31	**45**	0	3	**0**
xxii	31	112	**28**	1	9	**11**
xxiii	9	105	**9**	2	19	**11**
xxiv	43	137	**31**	4	29	**14**
xxv	23	59	**39**	1	5	**20**
xxvi	22	99	**22**	3	19	**16**
xxvii	27	103	**26**	3	20	**15**
xxviii	13	26	**50**	0	1	**0**
xxix	21	65	**32**	3	7	**43**
xxx	29	123	**24**	3	13	**23**
xxxi	22	123	**18**	1	8	**13**
Sum	703	2456	**29%**	48	272	**18%**

Table 2.

Nora: missing referential subjects in main and subordinate clauses						
	Main clauses			**subordinate clauses with complementiser**		
	missing	Total	% missing	missing	total	% missing
i.	2	11	**18**	0	0	n.a.
ii.	0	12	**0**	0	0	n.a.
iii.	16	76	**21**	0	0	n.a.
iv.	3	35	**9**	0	0	n.a.
v.	8	42	**19**	0	1	**0**
vi.	11	127	**9**	1	6	**17**
vii.	10	64	**16**	0	0	n.a.
viii.	4	29	**14**	0	2	**0**
ix.	0	68	**0**	0	2	**0**
x.	2	51	**4**	1	7	**14**
xi.	5	126	**4**	0	11	**0**
xii	1	66	**2**	0	2	**0**
xiii	7	243	**3**	2	18	**11**
xiv	15	171	**9**	0	4	**0**
xv	2	82	**2**	2	17	**12**
xvi	2	235	**1**	1	26	**4**
xvii	0	15	**0**	0	1	**0**
xviii	18	466	**4**	9	66	**14**
ixx	14	134	**10**	0	9	**0**
xx	6	214	**3**	0	14	**0**
xxi	18	454	**4**	4	35	**11**
xxii	3	154	**2**	0	28	**0**
xxiii	0	83	**0**	0	4	**0**
xxiv	6	70	**9**	0	2	**0**
xxv	11	166	**7**	3	20	**15**
xxvi	5	140	**4**	0	20	**0**
xxvii	26	372	**7**	0	13	**0**
Sum	195	3706	**5%**	23	308	**7%**

Examples of subject omissions from main and subordinate clauses are given in (2).

(2)

a. tjänar lite pengar (Fernando; xxiv; 1st person singular context)
earn little money
'I earn little money'

b.	därför att måste betala mycke pengar therefore must pay much money *'Therefore, he must pay a lot of money'*	(Fernando; xxiv; 3rd person singular context)
c.	tittar sina kompisar see his friends *'He sees his friends'*	(Nora; xiv; 3rd person singular context)
d.	när måste vägar paket when must weigh parcel *'When I must weigh the parcel'*	(Nora: xviii, 1st person singular context)

Table 3 records the absolute numbers and percentages of referential subjects missing from different person/number contexts. Subject omissions range across all person/number combinations, and are fairly evenly distributed in the IL data of both Fernando and Nora from the start until the end.

Table 3.

Missing subjects per person/number combination[83]						
	1st singular	2nd singular	3rd singular	1st plural	2nd plural	3rd plural
Fernando	194/1208 **16%**	75/204 **37%**	380/1074 **35%**	31/77 **40%**	4/7 **57%**	67/158 **42%**
Nora	63/1821 **3%**	16/219 **7%**	108/1507 **7%**	4/127 **3%**	1/25 **4%**	26/315 **8%**

[83] Although utterances with 2nd person plural reference are rare in the Spanish-Swedish data, there are a few instances of such utterances, unlike the Italian-German data and the Italian-English data.

For completeness' sake, table 4 focuses on 3rd person singular contexts to test for a possible interaction between 3rd person singular subject omissions and copula *är*.[84] However, Swedish *är* differs from its English and German suppletive counterparts *is* and *is(t)* in that the same form *är* is used for all persons, and only occurs as copula. The impossibility to use *är* as an auxiliary slightly depresses the number of contexts in which the L2ers use *är*, while the fact that one form is used for all persons makes an effect of verb form *är* on 3rd person singular subject omissions improbable.

Not surprisingly, neither of the learners shows any interaction between 3rd person singular subject omissions and verb form *är*. In fact, both learners show the opposite tendency to omit 3rd person singular subjects from utterances with verbs other than copula *är*.

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[84] The chi-square test (χ^2) calculates whether the frequencies of the nominal variables (subject omission and copula är) are related or independent.

Calculating χ^2 for Fernando's results in Table 4 (based on Brown, 1988):

Cell	(1) *fo*: observed frequency	appropriate marginals	(2) *fe*: expected frequency	(3) (*fo* – *fe*)	(4) (fo – fe)^2	(5) (fo – fe)/fe	(6) $\chi^2 = \mathrm{E}\ \frac{(fo - fe)}{fe} =$
a	60	(751 x 341)/ 2728	= 94	-34	1156	1156/94	= 12.29
b	281	(1977 x 341)/ 2728	= 247	34	1156	1156/247	= 4.68
c	691	(751 x 2387)/ 2728	= 657	34	1156	1156/657	= 1.75
d	1696	(1977 x 2387)/ 2728	= 1730	-34	1156	1156/1730	= 0.66
							χ^2_{obs} is **19.38**

(1) Observed frequencies are the frequencies in each cell of the contigency table (labeled a, b, c, or d in table 4)
(2) Expected frequencies are calculated by multiplying the appropriate column and row marginals for each cell and dividing the result by the grand total.
(3) The expected frequency for each cell is substracted from the observed frequency
(4) The result is squared
(5) The squared value is for each cell is divided by the expected frequency for that cell
(6) The sum of these χ^2_{obs} is 19.38

This numerical value expresses the degree to which the observed sample frequencies differ from expected population frequencies. The appropriate value of χ2 crit for a study with df= 1 and p< 0.01 would be 6.64. Since χ2 obs = 19.38 is higher than the critical value χ2 crit = 6.64, there is a relation between the omission of the subject and the verb used: learners tend to omit 3rd person singular subjects from utterances with verbs other than copula är.

Table 4

Relation between subject omission and copula *är*				
	Missing subject	Overt subject		df= 1 ; p< 0.01 ; χ^2_{crit} = 6.64
Fernando			(marginals)	
Copula *är*	60 (a)	281 (b)	(a + b = 341)	
Other verbs	691 (c)	1696 (d)	(c + d = 2387)	
(marginals)	(a + c = 751)	(b + d = 1977)	(a + b+ c+ d = 2728)	χ^2_{obs} = **19.38**
Nora				
Copula *är*	5	794		
Other verbs	213	3002		
				χ^2_{obs} = **44.25**

p< 0.01 is 99% probability that the observed relationship is due to factors other than chance.

Table 5 separately lists the omission of temporal/atmospheric expletive *det* (it) subjects and existential *det* (there) subjects. Utterances with extraposed clausal subjects requiring dummy *det* (it) are not listed in table 5 as they were not found in the Spanish-Swedish data. From the earliest recordings onwards both learners use overt expletive subjects fairly consistently. Fernando produces only one temporal construction (3a). His six utterances concerning atmospheric conditions are all phrased with the verb *finns* (*det finns*: there is/ there are, illustrated in (3b)), which native speakers of Swedish use exclusively for existential sentences. Therefore, these utterances were counted as existential rather than atmospheric constructions. After recording xxi, Fernando sometimes places the expletive subject post-verbally (*finns det*: is/are there) in declarative clauses. Nora places expletives before the verb only.

Table 5

Missing expletive subjects			
	Expletive *det* (it)		**Existential *det* (there)**
	Atmospheric/ temporal	Extraposed clausal subject	Existential
Fernando	0/1 **0%**	n.a.	38/213 **18%**
Nora	3/15 **20%**	n.a.	1/112 **1%**

(3)

a.	det är klockan sex it is six o'clock	(Fernando, v)
b.	det finns förtride grader varm It/there is is forty degrees hot	(Fernando, v)
c.	finns inge jobb här are no jobs here *'There are no jobs here'*	(Fernando, vii)
d.	Därför att kanske finns olika terminologi Because perhaps is different terminology *'Because the terminology is different, perhaps'*	(Fernando, xxxi)
e.	va regnade where rained *'Where it rained'*	(Nora, xviii)
f.	Det regnade mycke it rained much	(Nora, xxv)
g.	finns ati tusen are eight thousand *'There are eight thousand…"*	(Nora, xii)
h.	och i uruguay det finns manga and in Uruguay there are many	(Nora, xiv)

In addition to the expletive utterances tabulated in table 5, both learners produce a number of utterances with the ergative verb *komma* (come) followed by an NP subject, which would require a preverbal expletive *det* (there) subject in Swedish. Unlike what was found for the existential *finns* constructions, expletive *det* is used less in *komma* constructions: Fernando never uses *det* in any of his 21 *komma* constructions, while Nora has four *komma* utterances without expletive *det*, and four with expletive *det*. Examples of *komma* utterances are given in (4).

(4)

a.	kommer möbler i hall come furniture in the hall *'There will be furniture in the hall'*	(Fernando, iv)
b.	kommer en kvinna också come a woman also *'There comes a woman too"*	(Fernando, xxx)
c.	kommer en anna kvinna come another woman *'There comes another woman'*	(Nora, xviii)

d. det kommer kvinna me paraply (Nora, xxv)
there come woman with umbrella
'There comes a woman with an umbrella'

4.3.2 Subject-verb inversion

Table 6 compares subject placement relative to the verb in contexts which require VS orders in Swedish, that is, in declarative main clauses with one constituent preceding the subject and first verb.
Although many of the utterances are TL-like XVS constructions with the verb in second position (5a-b), in even more cases the subject comes in second and the verb in third position (5c-d). In other words, the learners do not apply Swedish subject-verb inversion consistently in obligatory contexts.

Table 6

VS and SV orders in obligatory Swedish VS contexts: declarative main clauses with one constituent preceding the subject and first verb		
	Fernando	**Nora**
X **V S**	44	78
X **S V**	96	193
Percentage TL-like VS orders	**31%**	**29 %**

Moreover, both learners produce VS orders in which the verb occurs in sentence-initial position (Fernando, n=53; Nora, n=59) or third position (Fernando, n=1; Nora, n=1), exemplified in (e-h).[85] Furthermore, VS orders were also found in subordinate clauses, something which is permitted in Swedish only if the complementiser is (*därför*) *att* (because/that); however, neither of the learners limited subordinate VS orders to *därför att* clauses, as is illustrated in (5i-j): Fernando produces 20 subordinate clauses with VS order, 12 of which are non-TL-like, while Nora uses 25 out of 27 subordinate VS orders in a non-TL-like manner.[86]

[85] VS orders with the first verb in clause-initial position are also possible in Swedish. These cases are commonly taken to involve a topicalised constituent such as an object or adverbial that has been 'dropped' because its meaning was clear from the discourse context. Such contexts cannot be reliably defined in the IL data, because adverbials are optional elements and even establishing the transitivity of IL verbs is not as straightforward as it may seem, which makes it difficult to say whether an object has been dropped.
[86] Note that VS constructions with the verb *komma* (come), which were discussed in relation with expletive usage above, have also been included in the inversion rates as they are typical inversion constructions in Spanish.

(5)

a.	där arbetade + min pappa there worked my daddy *'My daddy worked there'*	(Fernando, xxiv)
b.	den gjorde min flicka that/it did my girl *'My girl did that'*	(Nora, vi)
c.	den kurse man kan inte lära the course one can not learn *'One can not learn the course'*	(Fernando, xxvii)
d.	i torsda + förra torsdag vi gå till:: keramik on thursday last Thursday we go to ceramics? *On Thursday last Thursday we went to ceramics?'*	(Nora, vi)
e.	i latinamerika också brukar man äter kalkon in latin america also used one to eat turkey *'In Latin America too people eat turkey'*	(Fernando, xvii)
f.	kanske de tankte han perhaps that thought he *'Pehaps he thought that'*	(Nora, xiv)
g.	Behover man inte prata sa mycke svenska need one not talk so much swedish *'One does not have to talk so much Swedish'*	(Fernando, xxvi)
h.	prata pappa me flickar talk daddy with girl *'Daddy talks with the girl'*	(Nora, iii)
i.	när kommer pojke when come boy *'When the boy comes'*	(Fernando, xxvii)
j.	när ska jag ha test when shall I have test 'When I shall take the test'	(Nora, xxv)

4.3.3 SVAO orders

The third property of the Null Subject Parameter concerns the placement of proper adverbs relative to the first verb and the complement of the verb phrase. As with the Italian-English and Italian-German data, the Spanish-Swedish data contain few instances of proper adverbs. The usable adverbs that occurred were: *aldrig* (never), *alltid* (always), *ibland* (sometimes), and *kanske* (perhaps). Their number is even more restricted in utterances with transitive verbs, which is the only context in which the position of the adverb relative to the verb and its

complement can be determined. Table 7 lists the frequencies of the usable orders that were found.

Table 7

Adverbs vis-à-vis transitive verbs				
	SVAO	SVOA	ASV(O)	SAV(O)
Fernando	4	5	18	3
Nora	7	3	32	3

The adverb orders SVAO and SVOA are compatible with both Spanish and Swedish, whereas both ASV(O) and SAV(O) in main clauses violate the Swedish requirement that the finite verb must occur in second position. The only exception to the V2 rule is ASVO order with the adverb *kanske* (perhaps), which allows the finite verb to occur in third, rather than second position. Nora uses the ASVO order mostly, but not exclusively, in a TL-like way with *kanske*, while Fernando uses ASVO mostly with *aldrig* (never), which is not permitted in Swedish.

(6)

	A	S	V	O	
a.	Alltid	ja	skicka	pengar + de ä samma	(Nora, xviii)
	Always	I	send	money that is the same	

	S	A	V	O	
b.	Kvinna	*kanske*	har	lite ont	(Fernando, xiv)
	woman	perhaps	have	little ? is angry?	
	'Perhaps the woman is a little angry.'				

	S	V	A	O	
c.	Ja	glömde	*snabb*	(om prata)	(Fernando, xv)
	I	forgot	quickly	to speak	
d.	Och	laser	*ibland*	lite svenska	(Fernando, xii)
	And	read	never	little swedish	
e.	Du	äter	*aldrig*	me den?	(Fernando, xxv)
	you	eat	never	with that?	
	'You never eat with that?'				
f.	Och	han	har atit	*alltid* mat	(Nora, xxvii)
	He	have eaten always food			
	'He has always eaten food.'				
g.	Han	vill ha	*kanske*	sin ballong	(Nora, xxvii)
	He	want have	perhaps	his ballon	
	'*Perhaps he wants to have his balloon.*'				

Summarizing, the Spanish-Swedish data tentatively support the central hypothesis that the cluster of properties related to the L1 setting of the Null Subject Parameter carries over into the IL. The supporting evidence for this assumption most clearly derives from the attested distribution of missing subjects. The evidence for Spanish VS orders and adverb placement is suggestive of L1 transfer, and nowhere are the IL data inconsistent with the L1 grammar.

The following two studies investigate the same cluster of properties, but with different Romance-Germanic language pairs: section (4.4) deals with Italian-German data; section (4.5) looks at Italian-English data. In addition to finding more evidence for L1 transfer corroborating the findings for Spanish-Swedish, sections (4.4) and (4.4) further explore the unresolved issues of VS orders and adverb placement.

4.4 Italian-German IL findings

4.4.1 Missing subjects

The bar diagrams in figures 1 to 3 represent the percentages of missing referential subjects across all usable utterances per learner. A feature shared by the three learners is that they all omit subjects throughout the data collection, while the proportions of their subject omissions do not decrease significantly over time. The individual proportions of subject omissions, however, vary strikingly among the learners: Angelina maintains a high percentage of missing subjects, whereas Tino's subject omissions stabilise around 10% from the fifth recording onwards.

Tino's first four recordings contain rather limited numbers of usable utterances, which renders a distorted picture of missing subject proportions (either 0% or 100%). Angelina's first recording session contained no usable utterances, hence it is excluded from all tables. Marcello's first recording session contained only one usable utterance, which explains the zero percentage of missing subjects for that recording.

Figure 1.

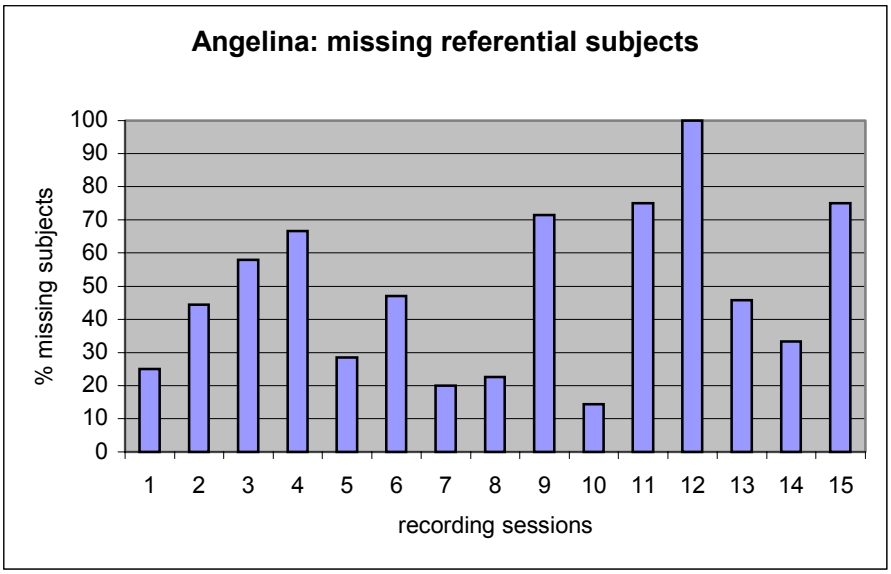


Figure 2.

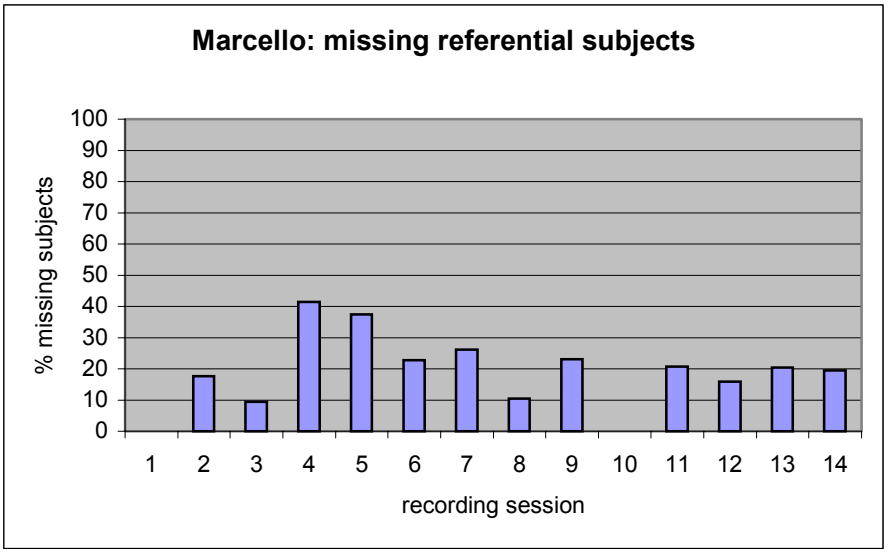
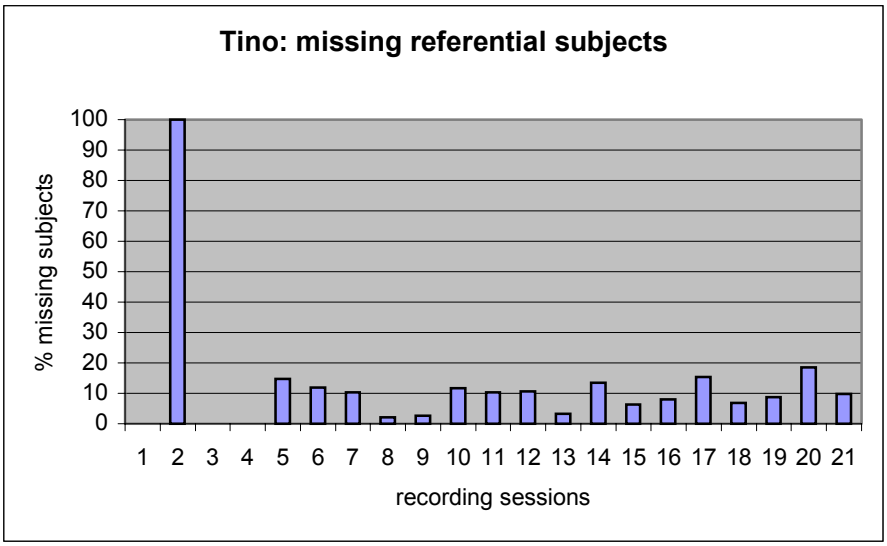


Figure 3.



Tables 1 to 3 report the distribution of subject omissions in main clauses and subordinate clauses introduced by an overt complementiser. Generally speaking, subjects are omitted from both clause types by all learners. Furthermore, there are no developmental changes in the proportions of missing subjects in either main clauses or subordinate clauses.

In the IL data, main clauses outnumber subordinate clauses. With very low frequencies, percentages tend more towards the extremes of 0% or 100%, distorting the overall picture. For this reason, absolute numbers should always be taken into account besides percentages. Especially Marcello has remarkably few subordinate clauses, which may explain his low overall proportion of missing subjects in these contexts.

Table 1.

Angelina: missing referential subjects in main and subordinate clauses						
	Main clauses			**subordinate clauses with complementiser**		
	missing	Total	% missing	missing	total	% missing
i.	3	17	**18**	2	3	**67**
ii.	3	8	**38**	1	1	**100**
iii.	10	17	**59**	1	2	**50**
iv.	5	8	**63**	1	1	**100**
v.	1	5	**20**	1	2	**50**
vi.	7	16	**44**	1	1	**100**
vii.	1	5	**20**	0	0	n.a.
viii.	6	35	**17**	3	5	**60**
ix.	5	6	**83**	0	1	**0**
x.	1	7	**14**	0	0	n.a.
xi.	6	8	**75**	0	0	n.a.
xii	6	6	**100**	0	0	n.a.
xiii	33	71	**46**	10	23	**43**
xiv	6	21	**29**	3	6	**50**
xv	2	2	**100**	1	2	**50**
sum	**95**	**232**	**41%**	**24**	**47**	**51%**

Table 2.

Marcello: missing referential subjects in main and subordinate clauses						
	Main clauses			**subordinate clauses with complementiser**		
	missing	Total	% missing		total	% missing
i.	0	1	**0**	0	0	n.a.
ii.	3	17	**18**	0	0	n.a.
iii.	3	32	**9**	0	0	n.a.
iv.	12	29	**41**	0	0	n.a.
v.	6	15	**40**	0	1	**0**
vi.	5	22	**23**	0	0	n.a.
vii.	6	23	**26**	0	0	n.a.
viii.	5	43	**12**	0	5	**0**
ix.	2	12	**17**	1	1	**100**
x.	0	13	**0**	0	2	**0**
xi.	12	57	**21**	0	1	**0**
xii	10	58	**17**	0	5	**0**
xiii	12	64	**19**	1	1	**100**
sum	76	385	**20%**	2	16	**13%**

Table 3.

Tino: missing referential subjects in main and subordinate clauses						
	Main clauses			subordinate clauses with complementiser		
	missing	Total	% missing	missing	total	% missing
i.	0	5	**0**	0	0	n.a.
ii.	1	1	**100**	0	0	n.a.
iii.	0	24	**0**	0	0	n.a.
iv.	0	9	**0**	0	0	n.a.
v.	8	54	**15**	0	0	n.a.
vi.	6	65	**9**	2	7	**29**
vii.	6	58	**10**	0	1	**0**
viii.	1	46	**2**	0	6	**0**
ix.	1	37	**3**	0	4	**0**
x.	4	34	**12**	0	5	**0**
xi.	8	94	**9**	2	15	**13**
xii.	4	46	**9**	1	9	**11**
xiii.	3	89	**3**	0	12	**0**
xiv.	2	34	**6**	3	8	**38**
xv.	1	16	**6**	0	2	**0**
xvi.	6	85	**7**	1	14	**7**
xvii.	25	195	**13**	6	42	**14**
xviii.	11	189	**6**	2	28	**7**
xix.	6	69	**9**	0	17	**0**
xx.	8	43	**19**	0	8	**0**
sum	101	1193	**8%**	17	178	**10%**

Examples of subject omissions from main and subordinate clauses are given in (7). The accompanying information in parentheses indicates the name of the learner, the number of the recording session in which the utterances were found, and the person/number contexts from which the subject was omitted.

(7)

a. in krankenhaus sprechen mit ein Frau (Angelina; iii, 1st person singular context)
in hospital speak with a woman
'In hospital I speak with a woman'

b. wenn gucke eine garten (Angelina; v, 3rd person plural context)
when see a garden
'When he sees a garden'

c. die erste nacht zusammen schlafen (Marcello: v, 3rd person plural context)
the first night together sleep
'The first night they sleep together"

d. wenn ist möglich (Marcello: ix, 3rd person
when is possible singular context)
'When it is possible'

e. weil fersteh nicht gut (Tino: vi, first person singular context)
because understand not well
'Because I do not understand very well'

f. wenn gefählt dir nicht so (Tino: xvii, third person singular
when pleases you not so context)
'When it does not please you so'

Table 4 summarises the frequencies and percentages of referential subjects missing from different person/number contexts. Examples of subject omissions are found across all person/number combinations, except for Marcello's data, which contained no unambiguous subject less utterances in second person singular contexts.

Missing subjects are most equally spread out across different contexts in Angelina's data, something that does not change over time. Both Marcello and Tino have very few subjectless utterances with 1st person reference, but the few instances that do occur are scattered across the whole period of data collection. From the start, Marcello and Tino tend to omit subjects from third person singular and plural contexts.

Table 4

Missing subjects per person/number combination[87]					
	1st person singular	2nd person singular[88]	3rd person singular	1st person plural	3rd person plural
Angelina	45/149 (**30%**)	8/17 (**47%**)	44/90 (**49%**)	5/6 (**83%**)	17/17 (**100%**)
Marcello	7/163 (**4%**)	0/15 (**0%**)	56/168 (**33%**)	2/30 (**7%**)	13/25 (**52%**)
Tino	11/568 (**2%**)	1/67 (**1%**)	91/397 (**23%**)	2/55 (**4%**)	13/123 (**11%**)

Table 5 focuses exclusively on 3rd person singular contexts to test for a possible interaction between subject omissions and one particular verb form: *is(t)*.[89] Utterances with copula or auxiliary *is(t)* are distinguished from utterances with verbs other than copula or auxiliary *is(t).* The rightmost column of Table 5 gives the values of chi-square analyses that were used to determine whether the

[87] Second person plural contexts were not found in the IL data.
[88] Where the polite form "sie" was used instead of the more informal "du" in 2nd person singular contexts, it was categorised as 2nd person singular.
[89] Most cases of *is(t)* were used as copula verbs instead of auxiliary verbs (Angelina 45/46; Marcello 24/41; Tino 96/108). Also note that the forms *is* without –t and *ist* with -t are collapsed because they are used interchangeably by the learners.

observed relationships between subject omissions and copula/auxiliary *is(t)* are statistically significant at p< 0.01.

Only Tino shows a preference for subject omissions with copula/auxiliary *is(t)*: Angelina shows rather an opposite tendency, while there is no significant relationship between subject omission and this verb form to be found in Marcello's data.

Table 5

Relation between subject omission and copula/auxiliary *is(t)* in 3rd person singular contexts			
	Missing subject	Overt subject pronoun	df= 1 ; p< 0.01 ; χ^2_{crit} = 6.64
Angelina			
Cop/Aux *is(t)*	9	37	
Other verbs	35	9	χ^2_{obs} = **30.72**
Marcello			
Cop/Aux *is(t)*	18	23	
Other verbs	38	89	χ^2_{obs} = **2,26**
Tino			
Cop/Aux *is(t)*	44	64	
Other verbs	47	242	χ^2_{obs} = **25,85**

p< 0.01 is 99% probability that the observed relationship is due to factors other than chance.

Table 6 reports the frequencies and percentages of subject omissions with the suppletive forms of copula and auxiliary *sein* (to be); inflected verb forms (present tense –s(t) and -t, and irregular or regular past tense forms); and modal auxiliaries (which are considered to be inherently finite, though not inflected). As in Table 5, copula and auxiliary forms of *sein* (*bin*, *bist*, *ist*, *sind*) have been collapsed into one category (1st four rows).[90]

[90] Note that a particular instance of a missing subject may occur in more than one category: for instance, past participle forms are counted separately from inflected auxiliaries, although past participle forms always cooccur with an auxiliary.

Table 6

Missing subjects with inflected or inherently finite verbs[91]						
	Angelina		**Marcello**		**Tino**	
1sg *bin*	4/21	**19%**	0/15	**0%**	0/39	**0%**
2sg *bist*	n.a.	n.a.	0/1	**0%**	0/4	**0%**
3sg *is(t)*	9/46	**19%**	18/41	**44%**	44/108	**41%**
plural *sind*	n.a.	n.a.	7/13	**54%**	10/26	**38%**
2sg –st	n.a.	n.a.	0/3	**0%**	0/34	**0%**
3sg –t	1/1	**100%**	21/60	**35%**	13/77	**17%**
Past forms	n.a.	n.a.	1/9	**11%**	3/15	**20%**
Past participle form	0/3	**0%**	26/134	**19%**	12/246	**49%**
Modals	4/9	**4%**	0/31	**0%**	2/2	**100%**

Table 6 is not informative about the effect of finiteness on the rates of missing subject, as it only tabulates instances of inflected forms, but does not set them off against uninflected forms. This is caused by the impossibility to determine obligatory contexts for modals, past participles and past tense forms in naturalistic production data like the data investigated in this study.

It is possible, however, to investigate the interaction between missing subjects and inflection in 2nd and 3rd person singular contexts. Strictly speaking, only the 2nd person singular ending –st is distinctive in German. Nevertheless, 3rd person singular –t also qualifies as distinct from other occurring inflectional endings in this study since it is only shared with 2nd person plural contexts, and the latter are altogether absent from the IL data. Unfortunately, table 6 shows that 2nd person inflections are rare in the IL data under discussion and are not found with missing subjects. This only leaves 3rd person singular contexts to scrutinise: table 7 compares frequencies of missing and overt subjects and inflected and uninflected main verbs in 3rd person singular contexts.[92]

The distributions of inflected verbs and subjects in table 7 show a lack of interaction between the two variables. Each individual learner omits subjects equally often with inflected and uninflected verbs as is clear from the fact that all observed chi-square values are under the critical chi-square value of 6.64 ($\chi^2_{obs} < \chi^2_{crit}$).

[91] Instances of non-TL –like inflections, such as verbs ending in –t with other than 3rd person singular or 2nd person plural subjects were excluded from table 6.
Inflected/finite verbs that occurred with 3rd person singular or plural NP subjects were also excluded as NP subjects cannot be omitted for reasons unrelated to finiteness and inflection.

[92] The suppletive form *is(t)* is treated separately in table 5 and is excluded altogether from table 7 because its idiosyncratic form is essentially different from the regular 3rd person singular verb form consisting of the inflectional pattern: stem + t.

Table 7

Relation between subject omission and inflectional ending *-t* in 3rd person singular contexts			
	Missing subject	Overt subject pronoun	df = 1 ; p< 0.01 ; χ^2_{crit} = 6.64
Angelina			
inflected	1	0	
uninflected	39	4	χ^2_{obs} = **0**
Marcello			
inflected	21	39	
uninflected	17	50	χ^2_{obs} = **1,35**
Tino			
inflected	13	64	
uninflected	34	178	χ^2_{obs} = **0,04**

p< 0.01 is 99% probability that the observed relationship is due to factors other than chance.

In addition to referential subjects, the distributions of IL expletive subjects deserve to be discussed. Table 8 compares the use of overt expletive *es* (it) and overt existential *es* (there).

While Angelina produces only one relevant utterance, Tino and Marcello's patterns of IL expletive usage reflect a distinction between existential expletives and other expletives, such as temporal/atmospheric *es* and *es* with an extraposed clausal subject: almost all of the latter are missing, whereas almost all of the existential utterances have overt expletive subject *es*.[93] It is not until the two last recordings that Tino uses two instances of overt expletive *es* in a temporal and an atmospheric expression alongside similar expressions with missing expletive subjects, exemplified in (8). The observed existential constructions consist of the verb form *gibt* and - in all but one case - the overt expletive subject *es*.

[93] Angelina produces no existential utterances with the verb form *gibt*; instead, she uses constructions with copula *sein* (be), like "bin auch persone" (am also persons), and "dann is immer musik" (then is always music). Such utterances (n=2) were excluded from table 8 because it is unclear whether they should be interpreted as existential constructions with a missing expletive pronoun or not.

Table 8

Missing expletive subjects			
	Expletive *es* (it)		**Existential *es* (there)**
	Atmospheric/ temporal	Extraposed clausal subject	Existential
Angelina	1/1	n.a.	n.a.
Marcello	4/4	1/1	0/8
Tino	16/18	5/5	1/12

(8)

a. wann is Samstag (Angelina, xiv)
when is Saturday
'When it is Saturday'

(Marcello, vi)

b. in ein bahnhof gibts ein schwiegervater und ein schwiegermutter
in a station are there a father-in-law and a mother-in-law
'There a father-in-law and a mother-in-law at a station'

c. es gibt ein bahnhof (Marcello, xi)
there is a station

d. es gibt zwei miljon persone ohne arbeiten (Tino, xi)
there are two million people without work

e. weil gibts mehr arbeit (Tino, xvii)
because are there more work
Because there is more work

f. für jetzt gibt wenig arbeit (Tino, xvii)
for now is little work
'At the moment there is little work'

g. und dan es is schon ein uhr (Tino, xix)
and then it is already one o'clock

h. und dan is schon später (Tino, xix)
and then is already later
'And then it is already later'

i. es hat auch geregnet (Tino, xx)
it has also rained

j. wenn hat geregnet (Tino, xx)
when has rained
'When it has rained'

4.4.2 Subject-verb inversion

Another relevant property of the IL data is the occurrence of VS orders in declarative utterances. German requires VS orders in main declarative clauses in which a clause-initial constituent precedes the subject and the first verb (XVS orders).

Table 9 shows that none of the learners consistently applies VS inversion in these obligatory contexts. Although all learners use a number of VS orders according to the German requirement, the majority of their relevant utterances have XSV orders, which are incompatible with the TL norm (exemplified in (9 a and 9b)). It is remarkable that Angelina, who is the least advanced learner in other respects, is the learner who seems to be closest to the TL-norm in table 9, whereas the generally most advanced learner Tino is further removed from the TL-norm than the others in this respect.

Table 9

VS and SV orders in obligatory German VS contexts: declarative main clauses with one constituent preceding the subject and first verb			
	Angelina	**Marcello**	**Tino**
X V S	18	19	29
X S V	40	60	181
Percentage VS	**31 %**	**24%**	**16%**

(9)

a. und dann ich will bezahlen alles (Angelina; xvi)
and then i want pay everything
'And then I want to pay everything'

b. in deutschland wir haben nächste jahr gekauft ein video (Marcello: xii)
in Germany we have next year bought a video
'We bought a video last year in Germany"

c. und dann komm die Zug (Tino: iii)
and then come the train
'And then the train comes'

Although Italian VS orders are possible in the XVS context presented in table 9, they are neither compulsory in -nor limited to- this context. For instance, Italian also permits VS orders in subordinate clauses with overt complementisers, something which is ungrammatical in German. As (10) shows, examples of VS orders in declarative subordinate clauses are attested in the data of all three learners: Angelina (n=19); Marcello (n=6); Tino (n=17).

(10)

a.	wann komm die andere frau mit ein kind when come the other woman with a child *'When the other woman comes with a child'*	(Angelina; ii)
b.	wenn bin ich mit er when am I with he *'When I am with him'*	(Marcello; x)
c.	wenn begin die neu jahre when begin the new year *'When the new year begins'*	(Tino: xiii)

Table 10 records the frequencies of all VS orders that were found in the IL data, including German-like XVS constructions, but also VS in declarative subordinate clauses with complementisers and declarative clauses with VS orders that are not preceded by a clause-initial constituent.[94]
It is worth noting that the proportions of VS orders remain rather stable during the data collection. None of the learners develops with regard to the use of VS orders in obligatory German contexts, nor do they unlearn un-German-like VS orders in subordinate clauses.

Table 10

VS orders in declarative main clauses and declarative subordinate clauses with complementisers

	Angelina	**Marcello**	**Tino**
1. 'be' + SA + S	13	8	1
2. V(lexical) + S	51	20	54
Total	**64**	**28**	**55**

1. 'be' + SA + SU/ 'be'+ SU + SA is a form of copula 'be' followed by a subject attribute (SA) and the subject (S) or vice versa.
2. lexical verb or auxiliary + lexical verb precede the subject

[94] VS orders with the fist verb in clause-initial position, like "machen wir" ((dropped object) *do we*) and "gehen wir" ((dropped time adverbial) *go we*) are also possible in German. These cases are commonly taken to involve a topicalised constituent such as an object or adverbial that has been 'dropped' because its meaning was clear from the discourse context. Such contexts cannot be reliably defined in the IL data, because adverbials are optional elements and even establishing the transitivity of IL verbs is not as straightforward as it may seem (e.g. the L2ers use the verb "gucken" (watch) both with and without complements: er guck (he watches); er guck die auto (he watches the car).

4.4.3 SVAO orders

The last IL property to be discussed concerns the placement of proper adverbs relative to the first verb and the complement of the verb phrase. As with the Italian-English data, the Italian-German data contain few instances of proper adverbs. Their number is even more restricted in utterances with transitive verbs, which is the only context in which the position of the adverb relative to the verb and its complement can be determined. Table 11 lists the frequencies of the usable orders that were found.

Table 11

Adverbs vis-à-vis transitive verbs				
	SVAO	SVOA	ASV(O)	SAV(O)
Angelina	3	0	5	1
Marcello	8	0	9	0
Tino	27	2	19	1
Total	**38**	**2**	**30**	**2**

The SVAO order occurs in both German and Italian. Unlike Italian, however, German does not allow the SVAO order to be preceded by another constituent, such as a time adverbial or a complementiser (* XSVAO). Narrowing down the already small pool of relevant data leaves us with even fewer, but unambiguous XSVAO utterances, which are incompatible with German. These utterances are listed exhaustively in (11).

(11)

a. und jetzt er macht *noch* ein fehler (Marcello, xi)
and now he make again a mistake

b. in italie ich habe *immer* sport gemacht (Marcello, xii)
in Italy i have *always* sports done

c. ...das ich suche *sofort* ein andere (Tino, xiii)
that I search *immediately* an other one

d. in diese moment grüs *nochmal* seine familie (Tino, xv)
in this moment greet *again* his family

e. und dann ich mus *immer* mein teller lassen für arbeit (Tino. xvii)
and then I must *always* my plate leave for work

f. wie jetzt ich habe *immer* etwas zu mache (Tino, xvii)
like now i have *always* something to do

(Tino, xvii)

g. (die sohn von der chef) das schpiele *immer* dieselbs kasette
(the son of the boss) who play *always* the same cassette

h. jede tag ich habe *immer* so 200 persone (Tino, xviii)
every day i have *always* 200 people

i. morgen ich mus *nochmal* früh aufstehen (Tino, xix)
tomorrow i must *again* early get up
j. manchmal ich habe *immer* punizione gehabt (Tino, xx)
often i have *always* (It: punishment) had

4.5 Italian-English IL findings

4.5.1 Missing subjects

The percentages of missing referential subjects across all usable utterances per learner are represented graphically in Figures 1 to 4. Although the individual proportions vary, these bar diagrams show that all learners omit subjects throughout the data collection; moreover, subject omissions do not decrease significantly over time.

Figure 1.

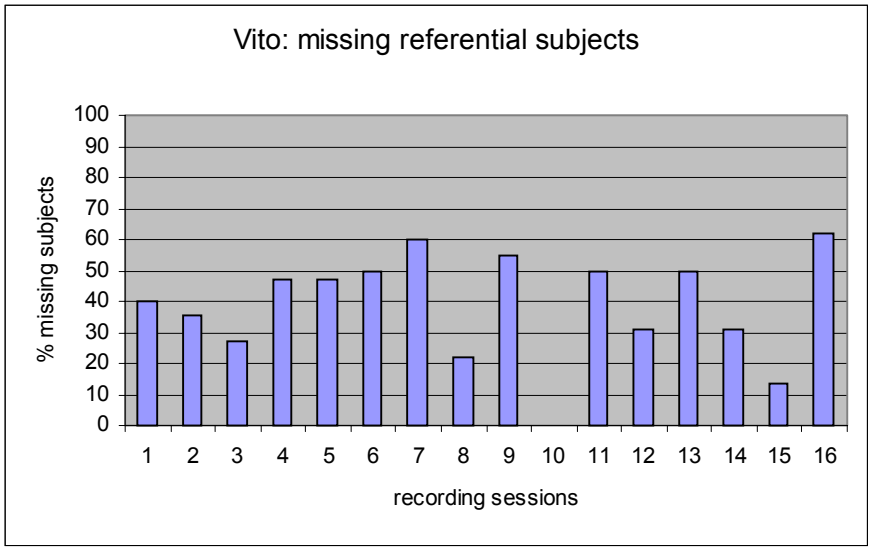


Figure 2.

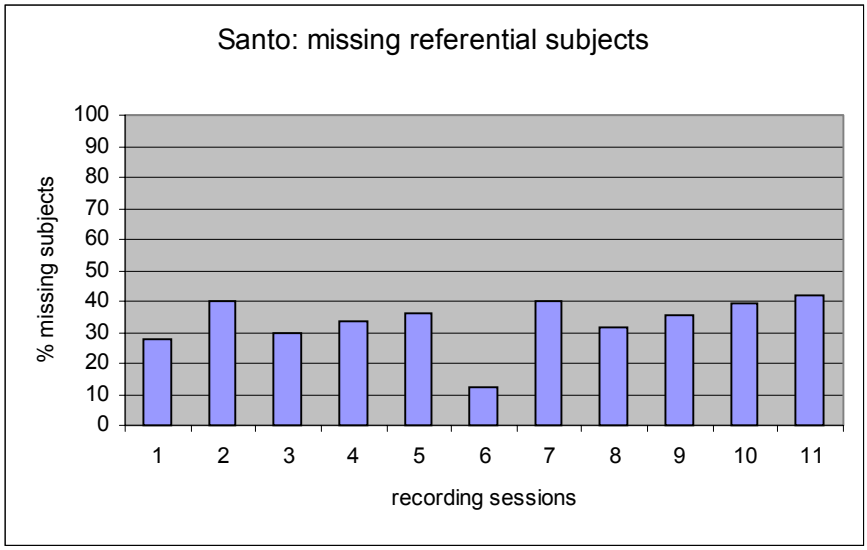


Figure 3.

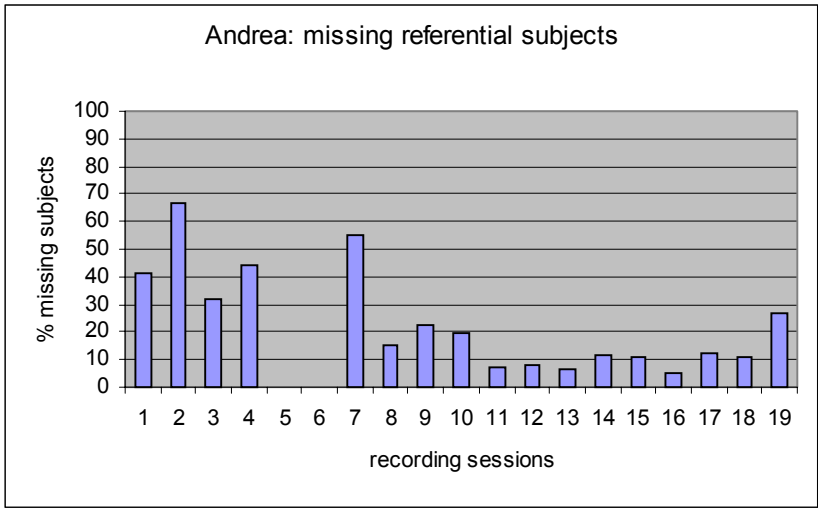
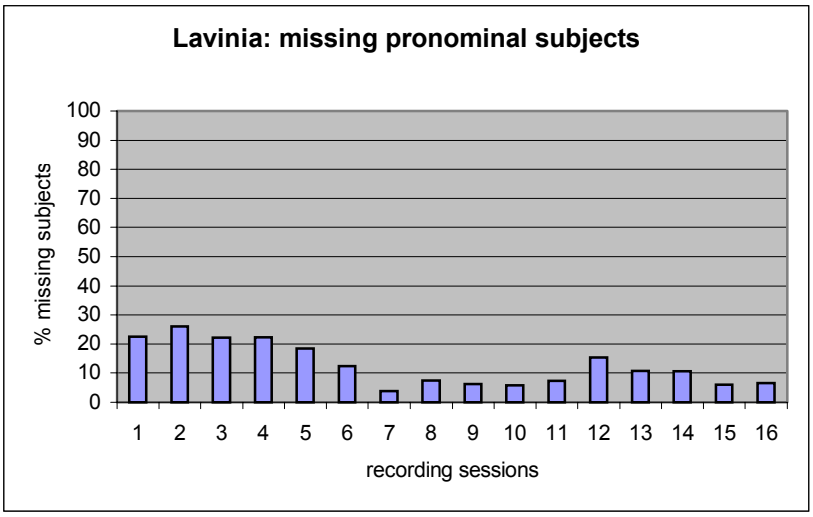


Figure 4.



In Tables 1 to 4, main clauses and subordinate clauses introduced by an overt complementiser have been teased apart to investigate the distribution of subject omissions. A general feature of all four tables is that subjects are omitted from both clause types throughout the data collection. Neither main clauses nor embedded clauses show a developmental decrease or increase in the proportion of missing subjects.

Besides the boldface percentages, the absolute numbers should be taken into account when comparing the differences between main and subordinate clauses, given the lower frequencies of subordinate clauses in the IL data. With very low frequencies, percentages may distort the picture: a single subject omission can mean a difference between 0% and 100% missing subjects. For instance, the non-occurrence of subjectless subordinate clauses in a recording session with a single subordinate clause means 0% missing subjects (cf. Table 1, recording i.), whereas the occurrence of two subjectless subordinate clauses during the next recording session with only two subordinate clause makes the proportion of missing subjects in that session 100% (cf. Table 1, recording ii.).

Table 1.

Vito: missing referential subjects in main and subordinate clauses						
	Main clauses			**subordinate clauses with complementiser**		
	missing	Total	% missing	missing	total	% missing
i.	4	9	**44**	0	1	**0**
ii.	4	15	**27**	2	2	**100**
iii.	3	11	**27**	0	0	n.a
iv.	25	53	**47**	0	0	n.a.
v.	9	19	**47**	0	0	n.a.
vi.	1	2	**50**	0	0	n.a.
vii.	6	10	**60**	0	0	n.a
viii.	2	9	**22**	0	0	n.a.
ix.	11	20	**55**	0	0	n.a.
x.	0	2	**0**	0	0	n.a.
xi.	6	12	**50**	0	0	n.a.
xii	5	16	**31**	0	0	n.a.
xiii	2	2	**100**	0	2	**0**
xiv	25	80	**31**	0	0	n.a.
xv	3	22	**14**	0	0	n.a.
xvi	33	61	**54**	17	20	**85**
sum	**139**	**343**	**41%**	**19**	**25**	**76%**

Table 2.

Santo: missing referential subjects in main and subordinate clauses						
	Main clauses			**subordinate clauses with complementiser**		
	missing	Total	% missing	missing	total	% missing
i.	9	35	**26**	1	1	**100**
ii.	15	40	**38**	3	5	**60**
iii.	15	54	**28**	3	6	**50**
iv.	16	40	**40**	1	11	**9**
v.	39	93	**42**	3	23	**13**
vi.	7	53	**13**	1	11	**9**
vii.	58	146	**40**	8	20	**40**
viii.	44	134	**33**	5	20	**25**
ix.	31	85	**36**	2	8	**25**
x.	68	177	**38**	10	22	**45**
xi.	65	160	**41**	8	13	**62**
sum	**345**	**1022**	**34 %**	**45**	**140**	**32%**

Table 3.

Andrea: missing referential subjects in main and subordinate clauses						
	Main clauses			**Subordinate clauses with complementisers**		
	missing	Total	% missing	missing	total	% missing
i.	23	54	**43**	0	2	**0**
ii.	2	3	**67**	0	0	n.a.
iii.	7	22	**32**	0	0	n.a.
iv.	11	24	**46**	0	1	**0**
v.	0	12	**0**	0	0	n.a.
vi.	0	6	**0**	0	1	**0**
vii.	19	29	**66**	3	11	**27**
viii.	6	35	**17**	0	4	**0**
ix.	2	5	**40**	0	4	**0**
x.	8	41	**20**	1	5	**20**
xi.	2	22	**9**	0	6	**0**
xii	6	68	**9**	1	21	**5**
xiii	5	77	**6**	1	13	**8**
xiv	2	13	**15**	0	4	**0**
xv	2	22	**9**	1	5	**20**
xvi	3	44	**7**	0	12	**0**
xvii	9	68	**13**	1	13	**8**
xiii	4	32	**13**	0	6	**0**
xix	7	24	**29**	0	2	**0**
sum	**118**	**601**	**20%**	**8**	**110**	**7%**

Table 4.

Lavinia: missing referential subjects in main and subordinate clauses						
	Main clauses			**subordinate clauses with complementisers**		
	missing	Total	% missing	missing	total	% missing
i.	14	57	**25**	0	5	**0**
ii.	13	49	**27**	0	1	**0**
iii.	34	144	**24**	2	18	**11**
iv.	21	85	**25**	0	9	**0**
v.	22	113	**19**	6	39	**15**
vi.	13	88	**15**	1	24	**4**
vii.	3	66	**5**	0	12	**0**
viii.	7	88	**8**	1	19	**5**
ix.	18	253	**7**	1	49	**2**
x.	10	145	**7**	0	25	**0**
xi.	15	172	**9**	0	35	**0**
xii	13	79	**16**	1	12	**8**
xiii	10	82	**12**	0	11	**0**
xiv	3	26	**12**	0	2	**0**
xv	8	128	**6**	1	22	**5**
xvi	1	12	**8**	0	3	**0**
sum	**205**	**1587**	**13%**	**13**	**286**	**5%**

Examples of subject omissions from main and subordinate clauses are given in (12). The accompanying information in parentheses indicates the name of the L2 learner, the number of the recording session in which the utterances were found, and the person/number contexts from which the subject was omitted.

(12)

a. (I don't remember) how much cost (Vito, ii, 3rd person singular)
'I don't know how much it costs'

b. yeah wash it in water (Vito, iii, 1st person singular)
'I wash it in water'

c. (I think you remember) what time play (Santo, vii, 3rd person plural)
'I think you remember what time he plays'

d. in august return in naples (Santo, xi, 3rd person singular)
'In 'August he returns to Naples'

e. (he don't want this) because is too large (Andrea x, 3rd person singular)
'He doesn't want this because it is too large'

f. speak together (Andrea, iii, 3rd person plural)
'They talk to each other'

g. because were talking to each other (Lavinia, viii, 3rd person
'Because they were talking to each other' plural)
h. maybe in the future can be a problem (Lavinia, xi, 3rd person
'Maybe it can be a problem in the future' singular)

Table 5 records the absolute numbers and percentages of referential subjects missing from different person/number contexts. Subject omissions range across all person/number combinations, and are most evenly distributed in the IL data of Vito and Santo; Andrea and Lavinia show a tendency to omit subjects from 3rd person singular contexts. [95]

Table 5

Missing subjects per person/number combination[96]					
	1st person singular	2nd person singular	3rd person singular	1st person plural	3rd person plural
Vito	59/180 **(33%)**	9/35 **(26%)**	66/124 **(53%)**	3/4 **(75%)**	21/25 **(84%)**
Santo	119/612 **(19%)**	39/202 **(19%)**	204/315 **(65%)**	5/6 **(83%)**	23/29 **(79%)**
Andrea	24/347 **(7%)**	0/99 **(0%)**	94/199 **(47%)**	0/37 **(0%)**	8/29 **(28%)**
Lavinia	17/615 **(3%)**	3/260 **(1%)**	188/706 **(27%)**	1/86 **(1%)**	9/206 **(4%)**

Table 6 focuses on utterances with 3rd person singular referents to test for a possible effect of verb form. The frequencies of missing and overt referential subjects are set out against the verb with which they occurred. Utterances with a copula or auxiliary "is" are distinguished from utterances with verbs other than copula or auxiliary "is". [97] The rightmost column of Table 6 indicates the values of chi-square analyses that were used to determine whether the observed differences for subject omissions and copula/auxiliary "is" are statistically significant at $p < 0.01$. Only Vito's data show no significant relation between the verb used and subject omission ($\chi^2_{obs} = 4.74 < \chi^2_{crit} = 6.64$), as the frequencies of missing subjects with "is" more or less equal those with other verbs. Santo's subject omissions tend to occur with verbs other than copula or

[95] Note that utterances with second person reference were excluded from the counts if it was unclear whether they were subjectless declaratives à la the L1 or subjectless imperatives, which are acceptable in both the L1 and the TL. Due to this decision, subject omissions from 2nd person contexts may be under-reported. Only Andrea is never found to omit subjects from (unambiguous) second person contexts.
[96] Second person plural contexts were not found in the IL data.
[97] Most cases of "is" were used as copula verbs instead of auxiliary verbs (Vito 35/54; Santo 230/231; Andrea 125/132; Lavinia 397/433).

auxiliary "is" (χ^2_{obs} = 44.27), while both Andrea and Lavinia show an opposite tendency for subject omission with copula or auxiliary "is" (χ^2_{obs} = 65.76 and χ^2_{obs} = 64.61 respectively).

Table 6

Relation between subject omission and copula "is" in 3rd person singular contexts			
	Missing subject	Overt subject pronoun	df= 1 ; p< 0.01 ; χ^2_{crit} = 6.64
Vito			
Cop/Aux "is"	23	31	
Other verbs	43	27	χ^2_{obs} = **4.74**
Santo			
Cop/Aux "is"	125	106	
Other verbs	79	5	χ^2_{obs} = **44.27**
Andrea			
Cop/Aux "is"	89	43	
Other verbs	5	62	χ^2_{obs} = **65.76**
Lavinia			
Cop/Aux "is"	161	272	
Other verbs	27	246	χ^2_{obs} = **64.61**

p< 0.01 is 99% probability that the observed relationship is due to factors other than chance.

Table 7 tests for the effect of finiteness on missing subject rates: it displays the raw numbers and percentages of subject omissions with inflected verb forms (present tense –s, irregular or regular –ed past tense forms), uninflected verb forms in 3rd person singular contexts, and modal auxiliaries (which are considered to be inherently finite, though not inflected).

As in Table 6, copula and auxiliary forms of "be" are collapsed into one category (1st three columns on the left). Unlike some of the findings for the highly frequent form "is", none of the learners has a propensity for subject omission with (the much less frequent) suppletive forms "am/are".

The three middle columns involve 3rd person singular contexts exclusively, as this is the only context which requires English main verbs to be marked with a distinct affix (–s) in the indicative present. A property shared by Vito, Santo and Andrea is that the number of correctly inflected main verbs in 3rd person singular contexts is too low to test the effect of inflection on the overtness of subjects. For Lavinia, however, the rate of missing subjects is just the same with inflected and uninflected verbs across the same time span.

Across all person/number combinations, some instances of subject omissions with inflected past tense forms and modal auxiliaries are also found (where the number of tallies for these categories is more than five).

Although the absolute number of instances in each category varies greatly among the learners, it is fair to say that there is no effect of finiteness on the omission of subjects. Therefore, the data do not warrant an explanation in terms of finitess for the observed tendency of Andrea and Santo to omit the subject with copula/auxiliary "is".

Table 7

Missing subjects with inflected verb forms and modals							
	am	are	is	3rd person singular uninflected	3rd person singular -s [98]	past forms	modals
Vito	0/1	0/0	23/54	21/34	1/1	0/2	0/5
	0%	**n.a.**	**43%**	**62%**	**100%**	**0%**	**0%**
Santo	0/14	2/6	125/231	34/37	1/1	5/38	0/2
	0%	**33%**	**54%**	**92%**	**100%**	**13%**	**0%**
Andrea	0/15	1/23	89/132	2/16	1/3	1/13	1/37
	0%	**4%**	**67%**	**12%**	**33%**	**8%**	**3%**
Lavinia	0/24	0/18	161/433	6/61	7/70	13/301	6/172
	0%	**0%**	**33%**	**10%**	**10%**	**4%**	**3%**

So far, only the IL findings concerning referential subjects have been discussed. Table 8 focuses on expletive subjects and reflects a difference between the use of overt expletive "it" and overt expletive "there". Expletive pronoun "it" is mostly absent; expletive "there", however, is consistently overt in existential utterances, with perhaps the exception of a single case where existential "there" seems to be missing.[99] Note that the data of Vito and Santo seem to lack existential utterances altogether (hence n.a. = not appropriate).

[98] In addition to appropriately inflected verbs, all learners used verbs ending in –s in contexts other than 3rd person singular: Vito n=5; Santo n=2; Andrea n=2; Lavinia n=7.These incorrect cases were not included in Table 7.

[99] In Andrea's 4th recording session, the following utterance occurs: "now is two reason I smoke very much". This is taken to be an instance of missing expletive "there" and accounts for the single tally in this category.

Table 8

Expletive subjects				
	Missing expletive it	Overt expletive it	Missing existential there	Overt existential there
Vito	6	1	n.a.	n.a.
Santo	9	0	n.a.	n.a.
Andrea	16	0	1	59
Lavinia	20	11	0	65
Total	**51**	**12**	**1**	**124**

While Table 8 contrasts the patterns for expletives "it"and "there", Table 9 deals only with the use of expletive "it", separately listing the three different constructions which normally require an overt expletive pronoun in English: atmospheric or temporal predicates (see examples 13 a-c), verbs like *seem* and *depend* (13d-e), and extraposed sentential subjects (13g-h).[100] There is just one case of an overt temporal expletive pronoun, but there are a couple of "it depends" utterances. Lavinia is the most advanced learner in terms of using overt expletives, and the only learner who sometimes uses overt expletive "it" in utterances with an extraposed clausal subject (n=6). Nevertheless, she does not use overt expletive "it" consistently; therefore, she does not converge on the TL norm. Santo and Andrea never use overt expletive "it" in any of the contexts.

Table 9

Expletive subjects						
	Missing expletive it			**Overt expletive it**		
	atmospheric temporal	seem depend	extraposed clausal subject	atmospheric temporal	seem depend	extraposed clausal subject
Vito	3	3	0	0	1	0
Santo	2	1	6	0	0	0
Andrea	0	4	12	0	0	0
Lavinia	3	3	14	1	4	6

[100] Note that certain English registers permit subjectless utterances with "seems"and "depends", which are regarded as instances of "diary-drop" (*Seems it's going to rain again*; *Depends on you*)

(13)

a.	I think was one o'clock	(Vito, 37a)
	'I think it was one o'clock'	
b.	when was time to pay the bill	(Lavinia 25l)
	'When it was time to pay the bill'	
c.	its two o'clock in the afternoon	
	'It's two o'clock in the afternoon'	
d.	seems my friend Maria	(Vito, 16)
	'It seems to be? my friend Maria'	
e.	depend jobs in italy	(Santo, 21a)
	'It depend (on?) jobs in Italy'	
f.	it depends	(Vito, 34q)
	'It depends'	
g.		(Andrea, 33i)
	(I think the movie to mean) that is possible to be happy with nothing	
	'…that it is possible to be happy with nothing'	
h.	it was the girl who done it	(Lavinia, ses. 25l)
	'It was the girl who did it'	

4.5.2 Subject-verb inversion

Besides patterns in subject omission, the occurrence of 'free' subject-verb inversion has also been investigated. Table 10. represents the raw numbers of word orders in which the overt subject follows the lexical verb instead of preceding it in declarative utterances. Post-verbal subjects are found both in the early and subsequent IL data of all learners. As with the other IL properties discussed here, the individual rates vary.

Table 10.

'VS constructions' with copula 'be' and other lexical verbs in declarative Italian-English utterances

	Vito	**Santo**	**Andrea**	**Lavina**
1. 'be' + SA + S	4	15	2	9
2. V(lexical) + S	22	41	5	5
Total	**26**	**56**	**7**	**14**

1. 'be' + SA + SU/ 'be'+ SU + SA is a form of copula 'be' followed by a subject attribute (SA) and the subject (S) or vice versa.
2. lexical verb or auxiliary + lexical verb precede the subject

The utterances in (14) exemplify some of these VS constructions. Examples 14a, 14b and 14f involve transitive verbs and have VOS orders as the subject follows both the lexical verb and the direct object:

(14)

a	Pick it the policeman *'The policeman picks it up'*	(Vito, xiv)
b.	look mio car the big woman *'The big woman looks at my car'*	(Vito, xvi)
c.	sleep on the beach me and my wife *'Me and my wife sleep on the beach'*	(Vito, xii)
d.	just walk the cat 'The cat just walks'	(Vito, xv)
e.	is gone windscreen *'The windscreen is gone'*	(Vito, xvi)
f.	have beautiful car one ferrari you *'You have a beautiful ferrari car'*	(Santo, viii)
g.	before work the joseph in the my kitchen *'Joseph worked in my kitchen before'*	(Santo, xi)
h.	is two years old this story *'This story is two years old'*	(Santo, xi)
i.	after come back the fire brigades *'After the fire brigades come back'*	(Andrea, iii)
j.	for me is important this piece of paper *'This piece of paper is important for me'*	(Andrea, xiii)
k.	every day went a man to cut the electricity *'A man went to cut the electricity every day'*	(Lavinia, ix)
l.	sometimes happened to me the same *'Sometimes the same happened to me'*	(Lavinia, xi)
m.	is very wet the weather in this country *'The weather in this country is very wet'*	(Lavinia, vi)

4.5.3 SVAO orders

Finally, Table 11 summarises the positioning of adverbs relative to main and auxiliary verbs. 'Adverbs proper' (*always*, *often*, etc.) are listed separately from other adverbs that do not belong to the list of proper adverbs commonly used as a diagnostic for verb movement (see footnote x). Among the 'other adverbs' tabulated here are: *after*, *just*, *never*, *now*, *only*, *preferably*, *regularly*, *too*.[101] The word orders in Table 11 are all possible word orders in Italian, and all but the two boldface word orders SVAO and SVVAO are possible in English.

[101] Note that *just* can be used as 'adverb proper', meaning *hardly* (*appena* in Italian), and as an adverb belong to the category 'other'adverb when it means *only*.

There is only a single utterance in which a proper adverb is placed between the transitive verb and its complement. An exhaustive list of utterances with 'improper' adverbs positioned between the verb and its complement ((S)(V)VAO) is given in (15).

Table 11

Adverb placement vis-à-vis transitive verbs						
	SVAO	SVOA	ASV(O)	SAV(O)	**SVVAO**	SVVOA
Vito						
proper	**1**	0	0	0	**0**	0
other	**0**	1	2	5	**0**	1
Santo						
proper	**0**	0	0	3	**0**	0
other	**5**	4	2	5	**0**	0
Andrea						
proper	**0**	0	0	1	**0**	0
other	**4**	0	0	0	**0**	0
Lavinia						
proper	**0**	5	20	1	**0**	1
other	**7**	4	15	3	**3**	1
Total	**18**	9	39	18	**3**	3

(15)

a. because I like *too much* my country (Santo, ii)
'Because I like my country too much'

b. because I like *too much* my friends (Santo, iv)
'Because I like my friends too much'

c. because I like *much* spaghetti tomato (Santo, x)
'Because I like tomato spaghetti too much'

d. I no possible sing *well* this song (Santo, x)
'I can not sing this song well'

e. I see *before in Naples* this (Santo, x)
'I saw this before in Naples'

f. I want *only* the money (Andrea, xii)
'I only want the money'

g. I need *absolutely* this piece of paper (Andrea, xiv)
'I absolutely need this piece of paper'

h.	I watch *only* the movie films *'I only watch the movie films'*	(Andrea, xvi)
i.	I like *very much* that movie *'I like that movie very much'*	(Andrea, xvi)
j.	my son likes *very much* book *'My son likes the book very much'*	(Lavinia, iii)
k.	I don't like *very much* music *'I don't like music very much'*	(Lavinia, iii)
l.	my son loves *very much* English food *'My son loves English food very much'*	(Lavinia, iii)
m.	I would like *only* an information *'I would only like information'*	(Lavinia, vi)
n.	I know *too* the woman *'I know the woman too'*	(Lavinia, vi)
o.	They send *yesterday* another *'They sent another one yesterday'*	(Lavinia, x)
p.	She move *a little bit* the toy car *'She moves the toy car a little bit'*	(Lavinia, xv)
q.	I hope *really* we are agoing to play *'I really hope we are going to play'*	(Lavinia, ix)
r.	here I can see *only* saucepan *'Here, I can only see a saucepan'*	(Lavinia, x)

4.6 Summary of results

The results presented above indicate the transfer of two properties commonly associated with the 'Null Subject Parameter' value of Spanish and Italian into the TL: missing subjects from main and subordinate clauses and subject-verb inversion. The results for a third related property, namely verb placement relative to adverbs, are suggestive of transfer rather than conclusive. Generally, the findings support the proposal that L2 learners initially maintain the parameter settings instantiated in their L1. There is no evidence for resetting of the parameter to the TL value as none of the L2ers stops omitting subjects or inverting the subject and the verb altogether. Chapter 5 analyses and discusses the results in depth and translates them into answers to the research questions of this study.